

Amendments to the Claims:

Please amend the claims as follows:

1. (Currently Amended) A breathing air analysis system for analyzing samples of breathing air substances and determining if said substances pass breathing air purity standards for certification of gas sample quality by a qualified third party other than the user, the system comprising:

a user facility having at least one breathing air source for providing a source of compressed human breathing air for scuba tanks and emergency air tanks;

at least one air collection tank at said user facility for collecting an air sample from said breathing air source at said user facility to ascertain the purity of the breathing air provided by said breathing air source;

a breathing air analysis module situated at said user facility for receiving the contents of a breathing air sample from said one or more air collection tanks at said user facility, for detecting breathing air purity characteristics and for converting said gas purity characteristics into computer-readable data;

a user facility computer for receiving said computer-readable data connected to an online computer network and for data transmission on-line;

a qualified third party air purity certification site for certifying air purity;

a server accessible on-line by said user facility computer maintained by said qualified third party certification site situated at said remote site and electrically coupled to said breathing air analysis module, said server including a data receiver of computer-readable data related to said gas purity characteristics;

said server including a means for storing said computer-readable data related to said breathing air purity characteristics; and

means for determining if said gas sample passes certain gas purity requirements for certification by said qualified third party at said certification site.

2. (Cancelled)

3. (Currently Amended) The breathing air analysis system of claim 1, wherein said data transmission is via a wireless transmission.

4. (Cancelled)

5. (Currently Amended) The breathing air analysis system of claim 1, including a means for informing said user facility if said breathing air sample has passed said breathing air purity requirements comprising an electronic message from said qualified third party certification site.

6. (Currently Amended) The breathing air analysis system of claim 1, including a means for informing said user if said breathing air sample has passed said gas purity requirements comprising a printed message from said qualified third party certification site.

7. (Cancelled)

8. (Currently Amended) The breathing air analysis system of claim 1, further comprising means for storing and printing results of said breathing air sample analysis.

9. (Currently Amended) The breathing air analysis system of claim 1, wherein said breathing air analysis module comprises:

means for collecting and temporarily storing the breathing air sample;

means for detecting breathing air impurities in said breathing air sample; and

data processing means for converting said detected breathing air impurity data into computer readable data, said computer readable data representing breathing air impurity characteristics of said breathing air sample.

10. (Currently Amended) The breathing air analysis system of claim 1, further comprising means for determining whether said breathing air sample contains oil particle impurities.

11. (Currently Amended) The breathing air analysis system of claim 1, wherein said means for determining if said breathing air sample passes certain breathing air purity requirements comprises means for comparing said computer-readable data related to said breathing air purity characteristics to a stored set of pre-determined breathing air breathing air purity standards.

12. (Currently Amended) A method of analyzing a breathing air sample for purity without the necessity of transporting the breathing air sample to a remote qualified third party breathing air testing facility and determining if said air sample passes breathing air purity standards, the method comprising the steps of:

providing a source of breathing air to supply scuba tanks and emergency air tanks at a user facility;

providing an air collection tank at said user facility;

collecting an air sample from said breathing air source in said air collection tank;

collecting a breathing air sample within a breathing air analysis module from said air collection tank situated at a breathing air producer user facility that provides a source of compressed human breathing air;

determining breathing air purity characteristics of said breathing air sample
received from said air collection tank at said user facility;

converting said breathing air purity characteristics into computer readable data;
and

transmitting through an on-line computer network said computer readable data
representing said breathing air purity characteristics from said user facility to a qualified server
for certification of use situated at a remote site and electrically coupled to said breathing air
analysis module, said server maintained by a qualified third party air purity certification site
including a receiver for receiving said computer readable data via a data transmitter, said server
containing a data storage element for storing said computer readable data;

determining if said breathing air sample passes certain gas purity requirements;
and

informing said breathing air producer user facility if said breathing air sample
has passed said breathing air purity requirements using an on-line response to a computer
located at said breathing air producer user facility's computer facility.

13. (Cancelled)

14. (Currently Amended) The method of claim 12, wherein said data transmission
is via a wireless transmission.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) The method of claim 12, wherein said remote site is an

accredited breathing air purity testing facility.

19. (Currently Amended) The method of claim 12, further comprising the steps of storing and printing results of said breathing air sample analysis.

20. (Currently Amended) The method of claim 12, including a means for determining if said breathing air sample passes certain breathing air purity requirements comprising the step of comparing said computer-readable data related to said breathing air purity characteristics to a stored set of pre-determined breathing air purity standards.